



Retail Dispensing from Aboveground Tanks at Airports

This fact sheet provides information airports regulated by the Illinois Department of Transportation (IDOT), Division of Aeronautics that are open to the public to dispense fuel for retail purposes from aboveground storage tanks (AST) into aircraft.

Where Permitted

Only those airports regulated by the Illinois Department of Transportation, Division of Aeronautics that have received special permit approval from that Division as well as the Office of the Illinois State Fire Marshal and that are open to the public shall be allowed to dispense fuel for retail purposes from aboveground storage tanks into aircraft.

Application, Permitting, and Inspection Process

The application for Airport Retail Dispensing ASTs can be found at the link below. A site plan that identifies the location of the tank(s) on the property should be included with the application. The site plan shall also include separation distances from other ASTs on the property, as well as separation distances spelled out in "Specific Requirements" (below) of this Fact Sheet. The completed and signed application and required site plan must first be submitted to the IDOT Division of Aeronautics (Kristy.Brod@illinois.gov) for their review and approval. IDOT Division of Aeronautics will then send the application to OSFM Technical Services Section for their review. The plan review comments received from Technical Services will provide information on how to call for an inspection from OSFM's Fire Prevention Division.

[Microsoft Word - Doc_3AST_Airport_Dispensing_AST_Application.doc \(illinois.gov\)](#)

Specific Requirements

- Aboveground retail dispensing installations shall be limited to one per airport.
- Tank separation distances shall be as follows:
 - At least 30 ft from any building
 - At least 30 ft from any flammable or combustible stored liquid (except from the second dispensing tank allowed at this site)
 - At least 30 ft from any sewer or septic field
 - At least 30 ft from any property line
 - At least 300 feet from any mine or air escapement
 - At least 85 feet from any place of public assembly
- Installations shall not have more than two tanks with a total capacity of 10,000 gallons each or more than two compartments per tank.

- Spill containment shall be achieved by using double-walled tanks.
- Tanks shall be listed in accordance with UL 2085 (1st edition-1994).
- Tanks shall have a minimum two-hour fire rating.
- Tanks shall be placed on a noncombustible base.
- Used tanks shall be recertified prior to installation. Allowable methods of re-certification include successful completion of a hydrostatic test, documentation of re-certification by the original manufacturer, or documentation from a registered professional engineer verifying the tank's safe condition and compliance with UL 2085.
- Sites shall be free of vegetation and combustible materials for a radius of 30 feet surrounding the tank/tanks.
- Sites subject to flooding shall have tanks that are protected against floatation.
- Wiring shall be in accordance with NFPA 70 (1990) for hazardous locations and enclosed in rigid metal conduit within a radius of 30 feet of the tanks and dispensers shall have seal-offs at all connections.
- Spill containment shall be provided for dispensers.
- Dispensers shall be equipped with breakaway and shear valves.
- Vehicle Barrier Protection (VBP) shall be provided to protect the tanks, pumps, dispensers, and vents from collision damage from aircraft, motor vehicles or aircraft wings by such means as raised curbs or guard rails. OSFM has a guideline for VBP that is acceptable to our Fire Prevention Division.
- Aircraft fueling hose shall comply with the requirements of API 1529 (4th ed-1993). Hose lengths of greater than 18 feet shall be contained on mechanically retractable reels and in no case exceed 50 feet unless approved by the Division of Aeronautics and the Office of the State Fire Marshal.
- Dispensing nozzles must be equipped with automatic closure devices that meet the requirements of U.L. 842, Valves for Flammable Liquids (7th edition-1993) and those approved by the Federal Aviation Administration.
- Storage tanks must be top filled, equipped with overspill protection and closures designed to be locked at all times during non-use. Remote tank filling shall be allowed in accordance with subsection a-12 of Title 41 Ill. Adm. Code 180.22.
- Vent shall be provided to relieve such vacuum or pressure as will develop in normal operations. Such vent will have a minimum unobstructed opening of one and one-half inches in diameter but shall in no case be smaller than the fill pipe diameter. The vent shall be elevated to a height of at least four feet above the fill portion of the tank. Vent openings shall be provided with an updraft device with 40 gauge screening. Manifolding of tank vents is not allowed.
- Emergency venting shall be provided to safeguard tanks during exposure to fire. The size of emergency venting shall be in accordance with NFPA 30, (1993).

- Tanks shall be equipped with a permanently connected pumping device listed by Underwriters Laboratory or Factory Mutual Engineering. The pump shall be located no further than 5 feet from the tanks and equipped with a padlock or electrical disconnect to prevent tampering, except that remote dispensing devices shall be allowable for purposes of safeguarding airport runways and areas intended for aircraft use only from the presence of tank trucks used to refuel aboveground storage tanks at the site.
- An emergency shut-off device shall be located at the dispenser.
- An anti-siphon device shall be installed at the pump discharge or at the tank exit. Siphons, internal pressure discharge devices, and gravity methods of dispensing are prohibited.
- No underground piping, manifolding of supply lines, or connections to bulk tanks is permitted.
- Dispenser grounding to the aircraft and aircraft to the ground must be provided during all fueling operations. Grounding cables must be contained on retractable reels and connected to one-half (1/2) inch diameter copper clad grounding rods driven at least eight (8) feet into the ground.
- Tanks for the storage of flammable or combustible liquids shall be marked with the name of the product they contain and “Flammable” (or “Combustible”)-Keep Fire and Flame Away,” both in letters at least four inches high and in contrasting colors from the tank. The tank shall also have signs at least ten and three-quarter inches by ten and three-quarter inches (10³/₄” x 10³/₄”) showing the international symbol for flammable (or combustible) liquids.
- Fueling locations shall have “No Smoking, Stop Engines” and “Prior to Fueling Turn Off All Electrical or Heating Devices” and “All Passengers Must Deplane” signs with letters at least four (4) inches high.
- Two Class B type fire extinguishers, providing a rating of 40-B each, shall be accessible at the site within a maximum travel distance of 30 ft from the dispensing location. The extinguishers shall be maintained in accordance with NFPA 10 (1994). Portable extinguishers are allowed to be stored in glass covered cabinets as a deterrent to theft.
- Defueling of aircraft into tanks is not permitted.
- Rooftop installations are not permitted.
- Dispenser control devices may use keys or cards to activate dispenser pumps. Coin and currency activation is prohibited.
- Fueling shall not be performed when there are lightning flashes in the immediate vicinity of the airport.
- Pumping and dispensing devices shall meet all calibration and metering requirements of the Illinois Department of Agriculture and the Illinois Department of Revenue.

- Retail fueling shall be accomplished by individuals certified by the Illinois Department of Transportation-Division of Aeronautics as being currently trained in the proper fueling of aircraft. The certificate shall be for a limited period of time and may be revoked for good cause (which may include, but not be limited to, any compromise of safety or environmental rules, regulations, or requirements) by either the Office of the State Fire Marshal or the Illinois Department of Transportation-Division of Aeronautics.
- All passengers and crew are required to deplane prior to refueling.
- Dispensing of fuel from this tank/tanks into vehicles other than aircraft is prohibited.

Contact Information

Office of the State Fire Marshal
Technical Services Section
SFM.Techservices@illinois.gov

IDOT Division of Aeronautics
Kristy.Brod@illinois.gov